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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/320,252	05/26/1999	PAUL EVAN MATZ	02950.P033	4390

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EXAMINER

ENGLAND, DAVID E

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 03/01/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/320,252

Applicant(s)

MATZ ET AL.

Examiner

David E. England

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 5, 7 - 13, 15 - 17, 19, 20 and 24 - 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 5, 7 - 13, 15 - 17, 19, 20 and 24 - 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 5, 7 – 13, 15 – 17, 19, 20 and 24 – 27 are presented for examination.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the transaction event must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the transaction information task must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation of, “transaction event”, does not appear in the specification.

6. Claims 4 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation of, “transaction information task”, does not appear in the specification.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation of “the distributing the task responsive to dynamically assigning a priority to the task” does not make sense as to the section of “the distributing the task” Please amend or clarify what this means.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 2, 4, 7 – 13, 15, 17, 19, 20 and 24 – 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundaresan (6289369) in view of Cota-Robles (6658447).

11. Referencing claim 1, Sundaresan teaches a method of executing a transaction task within a transaction processing system, the method including:

12. responsive to an event, identifying a workflow associated with the event, (e.g. col. 2, line 48 – col. 3, line 9 & col. 3, lines 22 – 37); and

13. identifying a processor affinity attributed to the task, (e.g. col. 4, line 63 – col. 5, line 29);

14. assigning the available thread to a processor within the multiprocessor system according to the processor affinity attributed to the task, (e.g. col. 3, line 55 – col. 4, line 14 & col. 8, line 48 – col. 9, line 19);

15. distributing a task, that at least partially executes the workflow, from a task queue to an available thread within a pool of threads operating within a multiprocessor system, (e.g. col. 5, line 49 – col. 6, line 7, “*central queue, local queue(s)*”). Sundaresan does not specifically teach the distributing the task responsive to dynamically assigning a priority to the task. Cota-Robles teaches the distributing the task responsive to dynamically assigning a priority to the task, (e.g.

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col. 5, lines 37 – 64 & col. 7, lines 16 – 56). It would have been obvious to one skilled in the art at the time the invention was made to combine Cota-Robles with Sundaresan because if a new task that has a higher priority enters a queue, it would be advantageous to the system to address the new task first in the thread so the system can utilize the important result of the finished thread.

16. As per claim 2, Sundaresan teaches wherein the event comprises a transaction event and the task comprises a transaction task responsive to a transaction request associated with the transaction event, (e.g. col. 5, lines 30 – 48).

17. As per claim 4, Sundaresan teaches the transaction task comprises a transaction information task to either store or retrieve information pertinent to a transaction, (e.g. col. 7, line 56 – col. 8, line 27).

18. As per claim 7, Sundaresan does not specifically teach assigning the available thread to a processor within the multiprocessor system according to a thread priority. Cota-Robles teaches assigning the available thread to a processor within the multiprocessor system according to a thread priority, (e.g. col. 1, lines 1 – 44 & col. 7, line 16 – 56). It would have been obvious to one skilled in the art at the time the invention was made to combine Cota-Robles with Sundaresan because of similar reasons stated above and if a thread that has important information that other threads rely on does not get processed first it could cause errors in the system.

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19. As per claim 8, Sundaresan does not specifically teach assigning the thread priority to the available thread based on a priority, of the task distributed to the available thread. Cota-Robles teaches assigning the thread priority to the available thread based on a priority, of the task distributed to the available thread, (e.g. col. 1, lines 1 – 44 & col. 7, line 16 – 56). It would have been obvious to one skilled in the art at the time the invention was made to combine Cota-Robles with Sundaresan because of similar reasons stated above and if an incoming task that is important, needs to be completed first, it could be sent to the next available thread within the pool of threads therefore, causing the thread to have the same priority as the task therefore having the task be processed sooner.

20. As per claim 24, Sundaresan teaches determining a best match between the task and the available thread, (e.g. col. 3, line 55 – col. 4, line 16).

21. As per claim 25, Sundaresan teaches the available thread is a member of a class of threads that are included in the pool of threads, (e.g. col. 6, lines 8 – 29 & col. 8, line 48 – col. 9, line 4) although does not specifically teach threads associated with the priority. Cota-Robles teaches threads associated with the priority, (e.g. col. 4, line 53 – col. 5, line 30). It would have been obvious to one skilled in the art at the time the invention was made to combine Cota-Robles with Sundaresan because of similar reasons stated above.

22. Claims 9 – 13, 15, 17, 19, 20, 26 and 27 are rejected for similar reasons as stated above.

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23. Claims 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundaresan (6289369) in view of Cota-Robles (6658447) in further view of Szlam et al. (6314089) (hereinafter Szlam).

24. As per claim 3, Sundaresan and Cota-Robles do not specifically teach wherein the transaction task comprises a transaction routing task that routes the transaction request associated with the transaction event to an agent of the transaction processing system. Szlam teaches wherein the transaction task comprises a transaction routing task that routes the transaction request associated with the transaction event to an agent of the transaction processing system, (e.g. col. 21, lines 1 – 19). It would have been obvious to one skilled in the art at the time the invention was made to combine Szlam with the combine system of Sundaresan and Cota-Robles because if a transaction task needed a resource that an agent possessed the transaction task could request it from the agent therefore aiding in the completion of the task.

25. Claim 16 is rejected for similar reasons as stated above.

26. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sundaresan (6289369) in view of Cota-Robles (6658447) in further view of Sequeira (6222530).

27. As per claim 5, Sundaresan and Cota-Robles do not specifically teach wherein the task has a real-time priority and is distributed in accordance with the real-time priority to the available thread within the pool of threads. Sequeira teaches wherein the task has a real-time

priority and is distributed in accordance with the real-time priority to the available thread within the pool of threads, (e.g. col. 5, line 46 – col. 6, line 6 & col. 9, lines 16 – 31). It would have been obvious to one skilled in the art at the time the invention was made to combine Sequeira with the combine system of Sundaresan and Cota-Robles because if an incoming task that is important, needs to be completed first, it could be sent to the next available thread within the pool of threads before the other tasks and be processed sooner.

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

29. a. Fong et al. U.S. Patent No. 6,263,359 discloses Computer resource proportional utilization and response time scheduling.

30. b. Mealey et al. U.S. Patent No. 5,745,763 discloses Method and apparatus for device driver funneling.

31. c. Valencia U.S. Patent No. 5,185,861 discloses Cache affinity scheduler.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 703-305-5333. The examiner can normally be reached on Mon-Thur, 7:00-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 703-308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David E. England
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De



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